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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com

Office Action Summary

Application No.

10/699,700

Applicant(s)

OZAWA, MASAHIRO

Examiner

BERNARD KRASNIC

Art Unit

2624

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 May 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 and 40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 and 40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
- Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. The Final Office Action filed by the Examiner on 2/02/2009 has been withdrawn because the Applicants representative, Ms. WeiWei Stiltner, convinced the Examiner that the finality was premature [as is discussed in the Examiner's Interview Summary dated 5/26/2009] only because a premature 101 rejection was issued towards claims 7-11, and therefore that Final Office Action dated 2/02/2009 will now be considered as a Non-Final Office Action instead of a Final Office Action. Since the Applicant has filed an Amendment on 5/04/2009 and a Supplemental Amendment on 5/22/2009 in response to the Examiner's Office Action dated 2/02/2009, this correspondence now is considered a Final Office Action.

Response to Arguments

2. The amendment filed 5/04/2009 and the supplemental amendment filed 5/22/2009 have been entered and made of record.

3. The application has pending claim(s) 1-16 and 40.

4. In response to the amendments filed on 5/22/2009:

The "Claim rejections under 35 U.S.C. 101" have been entered and therefore the Examiner withdraws the rejections under 35 U.S.C. 101.

5. Applicant's arguments filed 5/22/2009 [and Applicant's arguments also filed 5/04/2009] have been fully considered but they are not persuasive.

The Applicant alleges [5/04/2009], "Claim 1 recites that the selection unit displays ..." in page 20 through "Accordingly, claim 1 of the present application is patentable ..." in page 22, and states respectively that the prior art references Gentile, Queiroz, Hiroshi and Litwiller whether considered individually or in combination do not disclose the claim limitation "the selection unit displays one or more compression methods on the display for each region, enabling a user to select one of the plurality of compression methods in accordance with a type of the region from among the plurality of compression methods and wherein for each type of region, the selection unit displays only compression methods from compression methods in the plurality of compression methods that are designated for the type of region" as recited in claim 1. The Examiner disagrees because the four prior art references in combination do teach such a feature. More specifically, Gentile discloses separating and extracting different region types such as text, graphic, and photograph and compressing each different region type with different compression algorithms specific for the region type and that such a plurality of different compression algorithms are based on balancing the compression factors of compression ratio or size, computational complexity or speed, and visual quality or picture quality (see [e.g.] the rejection of claim 5 in the previous Office Action dated 2/02/2009 at pages 13-19). Queiroz and Hiroshi are used to further teach that text may be efficiently encoded using standard binary coders such as MMR and JBIG and that drawing/graph information subject can be coded for example by MH coding or MR

coding and that photograph information subject can be coded using MH coding or MR coding (see [e.g.] the rejection of claim 5 in the previous Office Action dated 2/02/2009 at pages 13-19) which essentially provides a list of the **only** possible compression methods from the plurality of compression methods in accordance with each type of region [text ==> e.g. MMR and JBIG; drawing/graph ==> e.g. MH coding or MR coding; photograph ==> e.g. MH coding or MR coding]. *Gentile further states then that a consultant (166) is used to help in the selection of the compression algorithm (see Gentile at col. 11 at lines 19-22).* Therefore Gentile as modified by Queiroz and Hiroshi **set up a compression environment** wherein a plurality of compression methods are available for each specific text, graphic, and photograph region type [e.g. text region type encoded using MMR and JBIG coding, drawing/graph region type encoded using MH or MR coding, and photograph region type encoded using MH or MR coding] and wherein the particular compression algorithms are determined based on a plurality of compression modes / factors [balancing the compression factors of 1 - compression ratio or size, 2 - computational complexity or speed, and 3 - visual quality or picture quality] *also subject to selection by the consultant.* However, the compression environment set up by Gentile as modified by Queiroz and Hiroshi does not explicitly suggest that there is a display enabling a user / consultant to select one of the plurality of compression methods [e.g. text region type encoded using MMR and JBIG coding, drawing/graph region type encoded using MH or MR coding, and photograph region type encoded using MH or MR coding] or compression modes / factors [balancing the compression factors of 1 - compression ratio or size, 2 - computational complexity or

speed, and 3 - visual quality or picture quality] in accordance with a type of the region / text, graphic, photograph. The prior art reference Litwiller discloses a display unit that displays compression choices and having the user [similar to Gentile's consultant] select on the user touching screen display the compression parameter (see Litwiller, [0061], [0065], and [0067]). Although Litwiller alone doesn't explicitly suggest a selection unit displaying one or more compression methods on the display for each region, in combination the four references Gentile, Queiroz, Hiroshi and Litwiller make such a limitation obvious; *it would have been obvious for Litwiller to display the **compression environment set up** by Gentile, Queiroz and Hiroshi [which consists of region specific compression lists as discussed above] by using Litwiller's ability to display possible compression parameter choices for selection by the user on the user touch screen.* Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify Gentile, as modified by Queiroz and Hiroshi, using Litwiller's teachings by including a display unit to Gentile's device/method in order to allow Gentile's [as modified by Queiroz and Hiroshi] compression environment to be displayed in order to enhance the selection process by allowing the user or consultant to touch the touch-sensitive display to provide a compression selection (see Litwiller, [0061], [0065], and [0067]). Therefore the claims are still not in condition for allowance because they still are not patentably distinguishable over the prior art references.

The Applicant alleges [5/04/2009], "With regard to claims 2-5, the claims have been amended ..." in page 22 through "Accordingly, claims 2-5 of the present application are patentable ..." in page 23, and states respectively that the prior art

references do not mention a display on which compression process modes are displayed. However the Examiner disagrees as discussed above because Gentile as modified by Queiroz and Hiroshi set up a compression environment wherein a plurality of compression methods are available for each specific text, graphic, and photograph region type [text ==> e.g. MMR and JBIG; drawing/graph ==> e.g. MH coding or MR coding; photograph ==> e.g. MH coding or MR coding] and wherein the particular compression algorithms are determined based on a plurality of compression modes / factors [balancing the compression factors of 1 - compression ratio or size, 2 - computational complexity or speed, and 3 - visual quality or picture quality] also subject to selection by the consultant and *it would have been obvious for Litwiller to display the **compression environment set up** by Gentile, Queiroz and Hiroshi [which consists of region specific compression lists as discussed above] by using Litwiller's ability to display possible compression parameter choices for selection by the user on the user touch screen.* Therefore the claims are still not in condition for allowance because they still are not patentably distinguishable over the prior art references.

The Applicant alleges [5/22/2009], "The Examiner and Applicant's representative discussed ..." in page 20 through "Applicant's representative further emphasized that Litwiller ..." in page 21, and states respectively that Gentile's consultant 166 is a computer-based function and is not based on user's selection and that Litwiller only discloses displaying possible compression parameter choices for the entire message instead of displaying them for each region. Firstly based on the broadest claim interpretation of the claim limitations, the claims never state that the user selection is not

computer based [the Examiner suggests the Applicant amend the claims to either state -- human-user selection -- or a -- non-computer-based user selection -- for such an argument to be raised] and further Litwiller discloses having the user [human user] select on the user touching screen display the compression parameter (see Litwiller, [0061], [0065], and [0067]). Secondly as discussed above, although Litwiller alone doesn't explicitly suggest a selection unit displaying one or more compression methods on the display for each region, in combination the four references Gentile, Queiroz, Hiroshi and Litwiller make such a limitation obvious; *it would have been obvious for Litwiller to display the **compression environment set up** by Gentile, Queiroz and Hiroshi [which consists of region specific compression lists as discussed above] by using Litwiller's ability to display possible compression parameter choices for selection by the user on the user touch screen.* Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify Gentile, as modified by Queiroz and Hiroshi, using Litwiller's teachings by including a display unit to Gentile's device/method in order to allow Gentile's [as modified by Queiroz and Hiroshi] compression environment to be displayed in order to enhance the selection process by allowing the user or consultant to touch the touch-sensitive display to provide a compression selection (see Litwiller, [0061], [0065], and [0067]). Therefore the claims are still not in condition for allowance because they still are not patentably distinguishable over the prior art references.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-16 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gentile (US 5,949,968, as applied in previous Office Action), in view of Queiroz ("Mixed Raster Content MRC model for compound image compression" – 1998 – vol. 3653, pages 1106-1117, as applied in previous Office Action) and Hiroshi (JP 05-110737, from Applicant's PTO 1449 – Information Disclosure Statement – IDS, as applied in previous Office Action), and further in view of Litwiller (US 2003/0132960 A1, as applied in previous Office Action).

Re Claim 1: Gentile discloses an image processing device / processing apparatus for output to a visual-output device (see col. 2, lines 4-6), comprising a region extraction unit / within a processor for separating and extracting a character region / text type, a graphic region / graphic type and a photograph region / photograph type from image data / two-dimensional page representation (see Fig. 2, col. 2, lines 26-30); a region compression unit / within a processor for performing a compression process / different algorithms for compressing for the image data in each region / different representation types extracted by said region extraction unit (see col. 2, lines 34-38); a region synthesis unit / within a processor for synthesizing / stored sequentially or displayed

together the image data of the regions / different types compressed by said region compression unit (see col. 3, lines 32-38, the compressed data is stored sequentially by the region which is essentially synthesizing or combining the compression regions, or the compressed data after being stored sequentially is decompressed and displayed on a display to the visual-output display as shown in ref. No. 18 or 80 of Fig. 1 and Fig. 3 which is essentially synthesizing or combining the compression regions); and a compression method selection unit / within a processor for selecting from among a plurality of compression methods / compression schemes, one of the plurality of compression methods / selection of compression algorithm scheme for each region / different types [visually active / graphics or pictures and for visually less active / text regions] for the compression process to be performed for each region / different types, wherein the selection unit enables a user / consultant to select one of the plurality of compression methods / compression algorithm schemes in accordance with a type of the region / different types among the plurality of compression methods / different compression algorithm schemes (see Gentile, col. 2, lines 34-38 and 63-63, abstract, lines 7-14, col. 10, lines 44-58, col. 11, lines 19-32, Gentile teaches selecting one of the compression mechanisms for each of the regions, according to its regions type, from a plurality of compression algorithm schemes corresponding to each different region representation type. Gentile teaches some compression schemes are: one-color encoding; two-color encoding; run-length encoding; LZW encoding; JPEG encoding; lossy encoding, lossless encoding; etc. Gentile also teaches the particular compression algorithm used for each region type is determined based on the compression factors

associated with the particular region type [for example: dependent on what ratio / size, computational complexity / speed, or visual quality / picture quality is wanted to be achieved for the particular region, a particular compression scheme from the plurality of compression schemes is selected]. See Gentile, col. 11, lines 53-65, Gentile teaches updating the compression scheme for the particular region if the target compression factors are not achieved therefore showing that plural compression schemes are available for each particular type of region. See Gentile, col. 11 at lines 19-22 and 37-40, Gentile discloses a consultant which is used to help in the selection of the compression algorithm based on [e.g.] compression factors), and wherein for each type of region, the selection unit contains only compression methods only from compression methods in the plurality of compression methods that are designated for the type of region / different types (see Gentile, col. 5, lines 11-25 and col. 10, lines 44-58, Gentile discusses possible lists or groups [not explicitly as separate lists or groups] of compression methods for visually active / graphics or pictures and for visually less active / text regions [Gentile states some compression schemes are one-color encoding, two-color encoding, run-length encoding, subsampling, LZW, and JPEG, Gentile then also discusses selecting the specific compression method based on the compression factors at hand]); said region compression unit / within a processor performing the compression process / different algorithms for compressing for the image data of each region / different representation types using the compression method selected / selection of compression algorithms for the region / different types by

said compression method selection unit (see Gentile, col. 2, lines 34-38 and 63-63, abstract, lines 7-14, col. 10, lines 44-58, col. 11, lines 19-32 and 53-65).

However Gentile does not explicitly disclose the possible lists or groups of compression schemes as separate lists or groups for each specific region type [text, graphic, photograph]; a display, and wherein the selection unit only displays one or more compression methods on the display for each region, enabling a user to select one of the plurality of compression methods.

Queiroz discloses *text* is efficiently encoded using standard binary coders such as *MMR and JBIG* (see Queiroz, page 1109, Section 3. Decomposition and compression analysis, paragraph 2, lines 5-6).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Gentile's method by using Queiroz's teachings by including further compression schemes in regard to the specific regions to Gentile's compression schemes in order to more efficiently compress the specific text, graphic, and photograph regions.

However Gentile, as modified by Queiroz, does not explicitly disclose the possible lists or groups of compression schemes as separate lists or groups for each specific region type [graphic, photograph]; a display, and wherein the selection unit only displays one or more compression methods on the display for each region, enabling a user to select one of the plurality of compression methods.

Hiroshi discloses *drawing/graph* information subject can be coded for example by *MH coding or MR coding* and that *photograph* information subject can be coded using *MH coding or MR coding* (see Hiroshi, abstract, CONSTITUTION, lines 5-10).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify Gentile's method, as modified by Queiroz, using Hiroshi's teachings by including further compression schemes in regard to the specific regions to Gentile's compression schemes in order to more efficiently compress the specific text, graphic, and photograph regions.

Although Gentile as modified by Queiroz and Hiroshi set up a compression environment wherein a plurality of compression methods are available for each specific text, graphic, and photograph region type [e.g. text region type encoded using MMR and JBIG coding, drawing/graph region type encoded using MH or MR coding, and photograph region type encoded using MH or MR coding] and wherein the particular compression algorithms are determined based on a plurality of compression modes / factors [balancing the compression factors of 1 - compression ratio or size, 2 - computational complexity or speed, and 3 - visual quality or picture quality] also subject to selection by the consultant, the compression environment set up by Gentile as modified by Queiroz and Hiroshi however does not explicitly suggest that there is a display enabling a user / consultant to select one of the plurality of compression methods [e.g. text region type encoded using MMR and JBIG coding, drawing/graph region type encoded using MH or MR coding, and photograph region type encoded using MH or MR coding].

Litwiller discloses a display unit that displays compression choices and having the user [similar to Gentile's consultant] select on the user touching screen display the compression parameter (see Litwiller, [0061], [0065], and [0067]).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify Gentile, as modified by Quieroz and Hiroshi, using Litwiller's teachings by including a display unit to Gentile's device/method in order to allow Gentile's [as modified by Quieroz and Hiroshi] compression environment to be displayed in order to enhance the selection process by allowing the user or consultant to touch the touch-sensitive display to provide a compression selection (see Litwiller, [0061], [0065], and [0067]).

Re Claim 5: Gentile discloses an image processing device / processing apparatus for output to a visual-output device (see col. 2, lines 4-6), comprising a region extraction unit / within a processor for separating and extracting a character region / text type, a graphic region / graphic type and a photograph region / photograph type from image data / two-dimensional page representation (see Fig. 2, col. 2, lines 26-30); a region compression unit / within a processor for performing a compression process / different algorithms for compressing the for image data in each region / different representation types extracted by said region extraction unit (see col. 2, lines 34-38); a region synthesis unit / within a processor for synthesizing / stored sequentially or displayed together the image data of the regions / different types compressed by said region compression unit (see col. 3, lines 32-38, the compressed data is stored sequentially by

the region which is essentially synthesizing or combining the compression regions, or the compressed data after being stored sequentially is decompressed and displayed on a display to the visual-output display as shown in ref. No. 18 or 80 of Fig. 1 or Fig. 3 which is essentially synthesizing or combining the compression regions); and a compression process mode setting unit / selection of compression algorithms using compression factors, said compression process mode setting unit contains a plurality of compression process modes / factors enabling a user / consultant to select one of the plurality of compression process modes / factors (see col. 2, lines 33-41, the selection of a plurality of different compression algorithms corresponding to different representation types with combinations are based on balancing the compression factors of compression ratio or size, computational complexity or speed and visual quality or picture quality, col. 11 at lines 19-22 and 37-40, Gentile discloses a consultant which is used to help in the selection of the compression algorithm based on [e.g.] compression factors); said region compression unit / within a processor using, when a speed preference mode / computational complexity is set / compression algorithms based on computation complexity factor at said compression process mode setting unit, one of a plurality of compression methods designated for the image data in each region / different types which exhibits a highest processing speed / low compression complexity to perform the compression process for the individual region (see col. 2, lines 33-41, col. 3, lines 5-10, when the selection of compression algorithms for the different representation types and their combinations is based on computational complexity, a low computational complexity results in high processing speed while a high

computational complexity results in low processing speed) wherein, for each type of region / different types, the designated compression method is selected from among the plurality of compression methods / selection of compression algorithm from different compression algorithm schemes, wherein each of the plurality of compression methods is designated for the type of region / different types (see Gentile, col. 2, lines 34-38 and 63-63, abstract, lines 7-14, col. 10, lines 44-58, col. 11, lines 19-32, Gentile teaches selecting one of the compression mechanisms for each of the regions, according to its regions type, from a plurality of compression algorithms corresponding to each different region representation type. Gentile teaches some compression schemes are: one-color encoding; two-color encoding; run-length encoding; LZW encoding; JPEG encoding; lossy encoding, lossless encoding; etc. Gentile also teaches the particular compression algorithm used for each region type is determined based on the compression factors associated with the particular region type [for example: dependent on what ratio / size, computational complexity / speed, or visual quality / picture quality is wanted to be achieved for the particular region, a particular compression scheme from the plurality of compression schemes is selected]. See Gentile, col. 11, lines 53-65, Gentile teaches updating the compression scheme for the particular region if the target compression factors are not achieved therefore showing that plural compression schemes are available for each particular type of region.) (see Gentile, col. 5, lines 11-25 and col. 10, lines 44-58, Gentile discusses possible lists or groups [not explicitly as separate lists or groups] of compression methods for visually active / graphics or pictures and for visually less active / text regions [Gentile states some compression schemes are one-color

encoding, two-color encoding, run-length encoding, subsampling, LZW, and JPEG,

Gentile then also discusses selecting the specific compression method based on the compression factors at hand]), said region compression unit / within a processor using, when a picture quality preference mode / visual quality is set / compression algorithms based on visual quality at said compression process mode setting unit, one of the plurality of compression methods designated for the image data in each region / different types which exhibits a least picture quality deterioration / best visual quality to perform the compression process for the individual region (see col. 2, lines 33-41, col. 3, lines 5-10, when the selection of compression algorithms for the different representation types and their combinations is based on visual quality, a best visual quality results in the least picture quality deterioration, a worst visual quality results in the highest picture quality deterioration), wherein, for each type of region / different types, the designated compression method is selected from among the plurality of compression methods / selection of compression algorithm from different compression algorithm schemes, wherein each of the plurality of compression methods is designated for the type of region / different types (see Gentile, col. 2, lines 34-38 and 63-63, abstract, lines 7-14, col. 10, lines 44-58, col. 11, lines 19-32 and lines 53-65, see the similar discussion above), and said region compression unit / within a processor using, when a size preference mode / compression ratio is set / compression algorithms based on the compression ratio factor at said compression process mode setting unit, one of the plurality of compression methods designated for the image data in each region / different types which exhibits a highest compression ratio / highest compression ratio to

perform the compression process for the individual region (see col. 2, lines 33-41, col. 3, lines 5-10, when the selection of compression algorithms for the different representation types and their combinations is based on compression ratio, the highest compression ratio results in a small data size, the least compression ratio results in a large data size), wherein, for each type of region / different types, the designated compression method is selected from among the plurality of compression methods / selection of compression algorithm from different compression algorithm schemes, wherein each of the plurality of compression methods is designated for the type of region / different types (see Gentile, col. 2, lines 34-38 and 63-63, abstract, lines 7-14, col. 10, lines 44-58, col. 11, lines 19-32 and lines 53-65, see the similar discussion above).

However Gentile does not explicitly disclose the possible lists or groups of compression schemes as separate lists or groups for each specific region type [text, graphic, photograph]; displays a plurality of compression process modes enabling a user to select one of the plurality of compression modes.

Queiroz discloses *text* is efficiently encoded using standard binary coders such as *MMR* and *JBIG* (see Queiroz, page 1109, Section 3. Decomposition and compression analysis, paragraph 2, lines 5-6).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Gentile's method by using Queiroz's teachings by including further compression schemes in regard to the specific regions to Gentile's

compression schemes in order to more efficiently compress the specific text, graphic, and photograph regions.

However Gentile, as modified by Queiroz, does not explicitly disclose the possible lists or groups of compression schemes as separate lists or groups for each specific region type [graphic, photograph]; displays a plurality of compression process modes enabling a user to select one of the plurality of compression modes.

Hiroshi discloses *drawing/graph* information subject can be coded for example by *MH coding or MR coding* and that *photograph* information subject can be coded using *MH coding or MR coding* (see Hiroshi, abstract, CONSTITUTION, lines 5-10).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify Gentile's method, as modified by Queiroz, using Hiroshi's teachings by including further compression schemes in regard to the specific regions to Gentile's compression schemes in order to more efficiently compress the specific text, graphic, and photograph regions.

Although Gentile as modified by Queiroz and Hiroshi set up a compression environment wherein a plurality of compression methods are available for each specific text, graphic, and photograph region type [e.g. text region type encoded using MMR and JBIG coding, drawing/graph region type encoded using MH or MR coding, and photograph region type encoded using MH or MR coding] and where the particular compression algorithms are determined based on a plurality of compression modes / factors [balancing the compression factors of 1 - compression ratio or size, 2 - computational complexity or speed, and 3 - visual quality or picture quality] also subject

to selection by the consultant, the compression environment set up by Gentile as modified by Queiroz and Hiroshi however does not explicitly suggest that there is a display enabling a user / consultant to select one of the plurality of compression modes / factors [balancing the compression factors of 1 - compression ratio or size, 2 - computational complexity or speed, and 3 - visual quality or picture quality] in accordance with a type of the region / text, graphic, photograph.

Litwiller discloses a display unit that displays compression choices and having the user [similar to Gentile's consultant] select on the user touching screen display the compression parameter (see Litwiller, [0061], [0065], and [0067]).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify Gentile, as modified by Quieroz and Hiroshi, using Litwiller's teachings by including a display unit to Gentile's device/method in order to allow Gentile's [as modified by Quieroz and Hiroshi] compression environment to be displayed in order to enhance the selection process by allowing the user or consultant to touch the touch-sensitive display to provide a compression selection (see Litwiller, [0061], [0065], and [0067]).

As to claim 6, the discussions are addressed with respect to claim 1. Further, Gentile's object / text, graphic and photograph or any combination which is a component of the document file / page representation in a page description language / text, graphic and photograph or any combination is similar to the image data consisting of a character region, a graphic region, and a photograph region of claim 1.

As to claims 2-4, the discussions are addressed with respect to claim 5.

As to claims 7-11, the claims are the corresponding method claims to claims 1-5 respectively. The discussions are addressed with regard to claims 1-5. Gentile further discloses the processors for performing image processing steps (see Gentile, e.g. Figure 1).

As to claims 12-16, the claims are the corresponding computer-readable medium claims to claims 1-5 respectively. The discussions are addressed with regard to claims 1-5.

As to claim 40, the discussions are addressed with respect to claim 5 [e.g. the best performance for the speed mode is the highest processing speed, the best performance for the picture quality mode is the least picture quality deterioration, and the best performance for the size preference mode is the highest compression ratio].

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bernard Krasnic whose telephone number is (571) 270-1357. The examiner can normally be reached on Mon-Thur 8:00am-4:00pm and every other Friday 8:00am-3:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on (571) 272-7453. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Bhavesh M Mehta/
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June 17, 2009